*Thermochimica Acta*, 237 (1994) 433–435
Elsevier Science B.V., Amsterdam



# VOLUME CONTENTS

(*Abstracted/Indexed in: Curr. Contents: Phys., Chem. Earth Sci.; Eng., Technol. Appl. Sci., Chem. Abstr., PASCAL/CNRS*)

*Vol. 237, No. 1*

REGULAR PAPERS

*Thermodynamics and Calorimetry*

Enthalpies and heat capacities of $Li_2SiO_3$ and $Li_2ZrO_3$ between 298 and 1400 K by drop calorimetry
H. Kleykamp (Karlsruhe, Germany) ..... 1

Melting of Tutton's salts studied by DSC
W. Voigt and S. Göring (Freiberg, Germany) ..... 13

Densities and excess molar volumes for binary mixtures containing 2,2,4-trimethylpentane and six different chlorohydrocarbons at 298.15 K
R. Francesconi and F. Comelli (Bologna, Italy) ..... 27

Excess volumes and excess viscosities of benzene with picolines
C. Lafuente, M.C. López, J. Santafé, F.M. Royo and J.S. Urieta (Zaragoza, Spain) ..... 35

Excess enthalpies of 1-nonene–*n*-nonane, 1-hexanol–2-hexyn-1-ol, 1-nonene–2-hexyn-1-ol–*n*-nonane, and 1-hexanol–2-hexyn-1-ol–*n*-nonane at 298.15 K
L. Kudryavtseva and E. Siimer (Tallinn, Estonia) ..... 43

Apparent molar heat capacities of some alkyl derivatives of 2-aminopurine, adenine and guanine in dilute aqueous solution at 25°C
A. Zielenkiewicz, W. Zielenkiewicz and K.L. Wierzchowski (Warsaw, Poland) ..... 49

Ionic solvation in water + co-solvent mixtures. Part 25. Gibbs free energies of transfer of single ions from water into water + sulpholane mixtures
L.A. Mount and C.F. Wells (Birmingham, UK) ..... 55

A kinetic analysis of the degradation of glucose by soil microorganisms studied by microcalorimetry
L. Nuñez, N. Barros and I. Barja (Santiago, Spain) ..... 73

*Thermal Analysis*

Synthesis of magnesium stannates by thermal decomposition of peroxo-precursors
G. Pfaff (Darmstadt, Germany) ..... 83

Conducting polyaniline salts: thermogravimetric and differential thermal analysis
S. Palaniappan and B.H. Narayana (Bangalore, India) ..... 91

Decomposition thermique d'hydroxyapatites carbonatées sodées
H. El Feki (Sfax, Tunisie), I. Khattech, M. Jemal (Tunis, Tunisie) and C. Rey (Toulouse, France) ..... 99

The properties and thermal decomposition in air of Co(II), Ni(II), Cu(II) and Zn(II) benzene-1,3-dioxyacetates
W. Brzyska and A. Król (Lublin, Poland) ..... 111

The thermal stability of some thiadiazole derivatives in relation to antimicrobial activity
S.K. Alzahawi, B.R. Muhyedeen, A.A. Alteman, S.R. Salman and Z. Muhi-Eldeen (Baghdad, Iraq) ..... 119

The decrepitation of dolomite and limestone
D. Dollimore (Toledo, OH, USA), J.G. Dunn (Perth, Australia), Y.F. Lee and B.M. Penrod (Toledo, OH, USA) ..... 125

A differential thermal analysis (DTA) apparatus for the investigation of liquid crystalline compounds at high pressures
C. Rein (Potsdam, Germany) and D. Demus (Chiba, Japan) ..... 133

Evidence for the intermediate generation of hexavanadate during the thermal degradation of $(NH_4)_2V_3O_8$
E.J. Baran, M.B. Vassallo (La Plata, Argentina) and D. De Marco (S.Agata di Messina, Italy) 143
Measurement of dielectric properties of polymers using Fourier analysis
A. Bizet, N. Nakamura, Y. Teramoto (Shizuoka, Japan) and T. Hatakeyama (Ibaraki, Japan) 147
Inequalities of the activation energy in non-isothermal kinetics
C. Popescu and E. Segal (Bucharest, Romania) ..... 159
An attempt to prepare *cis*-dianionobis(diamine)nickel(II) complexes. Cis–trans isomerism among the dianionobis(diamine)nickel(II) complexes obtained by thermal reactions of the corresponding tris(diamine) complexes
Y. Ihara and R. Toda (Kanazawa, Japan) ..... 167
A novel thermogravimetric analyser
H. Mahgerefteh, H. Khoory and A. Khodaverdian (London, UK) ..... 175

*Other Topics*
Isothermes 25°C, des systèmes ternaires limitant le système quaternaire réciproque: $H^+$, $K^+$, $PO_4^{3-}$, $SO_4^{2-}$, $H_2O$
N. Bourguiba et T. Jouini (Tunis, Tunisie) ..... 187
Photochromism and thermochromism of Sn(IV) complexes with 8-aminoquinoline and salicylidene-8-aminoquinoline
A.M. Donia and H. El-Boraey (Shebin El-Kom, Egypt) ..... 195

NOTES

*Thermodynamics and Calorimetry*
Complex formation between the macrocyclic ligand 18-crown-6 and unprotonated amines in methanol
H.-J. Buschmann (Krefeld, Germany) and L. Mutihac (Bucharest, Romania) ..... 203

*Thermal Analysis*
Thermokinetic properties of inhibited vegetable oils
T. Kasprzycka-Guttman, D. Odzeniak and M. Supera (Warsaw, Poland) ..... 207
DSC study of the thermal decomposition of 1-decene ozonide
M.P. Anachkov, S.K. Rakovsky, R.K. Fotty and A.K. Stoyanov (Sofia, Bulgaria) ..... 213

*Vol. 237, No. 2*

REGULAR PAPERS

*Thermodynamics and Calorimetry*
The heat capacities of ternary lanthanum chlorides $A_nLaCl_{3+n}$ from 200 to 770 K and the $\Delta C_p$ values for their formation from $n$ACl + $LaCl_3$
G. Reuter and H.-J. Seifert (Kassel, Germany) ..... 219
Thermochemistry of thallous styphnate
J.R. Payne (Egham, Surrey, UK) ..... 229
Heat capacity and thermodynamic properties of alkali metal compounds. Part 6. Cesium and rubidium dichromates
R. Kohli (Columbus, OH, USA) ..... 235
Heat capacity and thermodynamic properties of alkali metal compounds. Part 7. Cesium and rubidium dimolybdates
R. Kohli (Columbus, OH, USA) ..... 241
Heat capacity and thermodynamic properties of alkali metal compounds. Part 8. Cesium and rubidium halides
R. Kohli (Columbus, OH, USA) ..... 247
A DSC characterization of sulphur–selenium interaction phenomenology
V. Berbenni, A. Marini, V. Massarotti and D. Capsoni (Pavia, Italy) ..... 253

Application of DISQUAC to binary liquid organic mixtures containing 1-alkanols and $CCl_4$
J.A. González, I. García la Fuente, J.C. Cobos and C. Casanova (Valladolid, Spain)..... 261
Temperature dependence of excess volume of 1-alkanol + *n*-alkane binary systems in terms of an association model with a Flory contribution term
A.J. Treszczanowicz and T. Treszczanowicz (Warsaw, Poland)..... 277
Enthalpy of formation and enthalpy of mixing of calcium and cadmium hydroxyapatites
A. Ben Cherifa, M. Jemal, A. Nounah and J.L. Lacout (Tunis, Tunisia)..... 285

*Thermal Analysis*
The determination of quartz using differential scanning calorimetry
G.A. Norton (Ames, IA, USA)..... 295
The effect of copper oxides on the curing of brominated epoxy resins
S.G. Hong and T.C. Wang (Tao-Yuan, Taiwan)..... 305
Thermodynamic restrictions on the temperature and pressure dependence of the rate constant in chemical reaction kinetics
K.O. Strømme (Oslo, Norway)..... 317
The kinetics of the thermal reactions of nickel(II) complexes containing *dl*-2,3-butanediamine in a solid phase
Y. Masuda, N. Suto, Y. Ito (Niigata, Japan) and Y. Ihara (Kanazawa, Japan)..... 325
Complexation of peptides with crown ethers. Part 2. Thermokinetic behaviour of hydrated compounds consisting of α-amino acids, peptides and 18-crown-6
O.V. Kulikov (Ivanovo, Russian Federation), W. Zielenkiewicz and E. Utzig (Warsaw, Poland)..... 333
Thermal decomposition kinetics of solid iron(III) tris-*N*-*p*-nitrobenzoyl-*N*-phenylhydroxylamine
M.I. Yoshida, M.M. Brage and J.C. Machado (Belo Horizonte, MG, Brazil)..... 347

*Other Topics*
Thermodynamics of substituted rhodanine, Part 1. Temperature, medium and substituent effects on the dissociation constants of 3-benzamidorhodamine and its substituted derivatives
I. Shehatta and A.A. El-Bindary (Mansoura, Egypt)..... 357
Thermodynamic studies of some complexes of 4′-morpholinoacetophenone thiosemicarbazone
T. Atalay and E. Özkan (Konya, Turkey)..... 369
Approximate techniques for the calculation of heats of explosion using thermochemical computer codes
R.A. Fifer and J.B. Morris (Aberdeen Proving Ground, MD, USA)..... 375
Estimation and revision of some thermodynamic data in the YBaCuO system. Part 1. Values of $H^{\ominus}_{298} - H^{\ominus}_{0}$ and temperatures of the phase transformations
G. Moiseev, N. Vatolin (Ekaterinburg, Russian Federation) and J. Šesták (Prague, Czech Republic)..... 391
Estimation and revision of some thermodynamic data in the YBaCuO system. Part 2. Standard entropies of formation
G. Moiseev, N. Vatolin (Ekaterinburg, Russian Federation) and J. Šesták (Prague, Czech Republic)..... 401
Estimation and revision of some thermodynamic data in the YBaCuO system. Part 3. Heat capacities
G. Moiseev, N. Vatolin (Ekaterinburg, Russian Federation) and J. Šesták (Prague, Czech Republic)..... 409

*Author Index*..... 421

*Subject Index*..... 423

*Volume Contents*..... 433